



Response to Office Action
Application No. 10/728,641
Attorney's Docket No. T-6292

AMENDMENT TO THE CLAIMS:

- Claim 1 (Currently amended) A homogeneous, amorphous cogel catalyst support comprising a modifying-metal-oxide and a base-metal oxide, ~~in which~~ wherein the modifying-metal-oxide is homogeneously distributed throughout the base-metal oxide, the catalyst support having a Surface to Bulk modifying-metal /base-metal atomic ratio of from about ~~0.6 to about 1.3~~ 0.9 to about 1.1 and exhibiting an X-ray diffraction having broader line width and lower intensity than is exhibited by the base-metal oxide.
- Claim 2 (Original) A catalyst support according to claim 1, wherein the modifying-metal-oxide is selected from the group consisting of silica, titania, zirconia, magnesia and mixtures thereof.
- Claim 3 (Original) A catalyst support according to claim 1, wherein the base-metal-oxide is selected from the group consisting of alumina, silica, titania and mixtures thereof.
- Claim 4 (Original) A catalyst support according to claim 3, wherein the modifying-metal-oxide is selected from the group consisting of silica, titania, zirconia, magnesia and mixtures thereof.
- Claim 5 (Original) A catalyst support according to claim 4, wherein the base-metal oxide is alumina and the modifying-metal-oxide is silica.

- Claim 6 (Original) A catalyst support according to claim 5, wherein the catalyst support comprises from about 70 wt% to about 99.75 wt% alumina.
- Claim 7 (Original) A catalyst support according to claim 5, wherein the catalyst support comprises from about 90 wt% to about 99 wt% alumina.
- Claim 8 (Original) A catalyst support according to claim 5, which has been prepared by a cogel process.
- Claim 9 (Currently Amended) A homogeneous, amorphous silica-modified-alumina cogel catalyst support having a Surface to Bulk Si/Al ratio of from about 0.6 to about 1.3 0.9 to about 1.1 and exhibiting an X-ray diffraction having broader line width and lower intensity than is exhibited by unmodified alumina.
- Claim 10 (Cancelled) ~~A catalyst support according to claim 9, wherein the Surface to Bulk Si/Al ratio is from about 0.8 to about 1.2.~~
- Claim 11 (Cancelled) ~~A catalyst support according to claim 9, wherein the Surface to Bulk Si/Al ratio is from about 0.9 to about 1.1.~~
- Claim 12 (Original) A catalyst support according to claim 9, wherein the Surface to Bulk Si/Al ratio is from about 1.0.

- Claim 13 (Original) A catalyst support according to claim 9, wherein the catalyst support comprises from about 70 wt% to about 99.75 wt% alumina.
- Claim 14 (Currently amended) A homogeneous, amorphous silica-modified-alumina ~~cogel~~ catalyst support exhibiting an X-ray diffraction having a broader ~~linewidth~~ line width and lower intensity than is exhibited by unmodified alumina.
- Claim 15 (Currently amended) A catalyst support according to claim 14, wherein the full ~~linewidth~~ line width is 50% greater than the ~~linewidth~~ line width of unmodified alumina when measured at half height.
- Claim 16 (Original) A catalyst support according to claim 14, wherein the intensity is at least 25% lower than for the unmodified alumina.
- Claim 17 (Currently amended) A catalyst for the Fischer-Tropsch process comprising a homogeneous, amorphous ~~cogel~~ catalyst support comprising a modifying- metal-oxide and a base-metal oxide, ~~in which~~ wherein the modifying-metal-oxide is homogeneously distributed throughout the base-metal oxide, the catalyst support having a Surface to Bulk modifying-metal /base-metal atomic ratio of from about 0.6 to about 1.3 0.9 to about 1.1 and exhibiting an X-ray diffraction having broader line width and lower intensity than is exhibited by the base-metal oxide and a catalytically active Group VIII metal.

- Claim 18 (Original) A catalyst according to claim 17, further comprising at least one promoter.
- Claim 19 (Original) A catalyst according to claim 17, wherein the modifying-metal-oxide is selected from the group consisting of silica, titania, zirconia, magnesia and mixtures thereof, the base-metal-oxide is selected from the group consisting of alumina, silica, titania and mixtures thereof.
- Claim 20 (Currently amended) A catalyst according to claim 19, wherein the catalytically active Group VIII metal is selected from the group consisting of cobalt, iron and ~~mixtures~~ mixture thereof.